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Public Health Infection Prevention- Hot topics!

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Resistant Pathogens (SHARP) unit

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Health Alert Network- HAN

Why do I get alerts?


Why do you get HANs from SHARP?

1) Product Recall

- Due to contamination found by quality testing
- Due to contamination resulting in infections

2) Call for Cases

- We know something is contaminated and causing infections – we are looking for others
- We are detecting cases through surveillance and looking for the cause



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Epi-X

The Epidemic
Information Exchange

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04/23/2018

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UPDATE: Multistate Outbreak of Serratia marcescens Infections -- 2018

Access and Notification:

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Distribution:

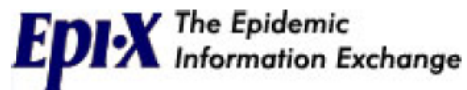
Distribute on a need-to-know basis

Brief Summary of Report:

In response to the current investigation of the multistate outbreak of Serratia marcescens infections and potential association with the use of heparin and saline flushes, BD is voluntarily recalling certain lots of BD PosiFlush™ Heparin Lock Flush and BD™ Pre-Filled Normal Saline Flush syringes.

Description:

.....



Burkholderia cepacia complex Infections Associated with Use of Medline Remedy Essentials No-Rinse Foam -- 2018

Access and Notification:

[Click to see who has viewed this report.](#)

Distribution:

Distribute on a need-to-know basis

Contributor's instructions for distributing this report.

Brief Summary of Report:

CDC is providing support to state and local health departments in the investigation of two clusters of *Burkholderia cepacia* complex (Bcc) infections at two acute care hospitals in Pennsylvania and California occurring between November 2017 and March 2018.

Description:

CDC is providing support to state and local health departments in the investigation of two clusters of *Burkholderia cepacia* complex (Bcc) infections at two acute care hospitals in Pennsylvania and California occurring between November 2017 and March 2018. As of March 23, 2018, five of the ten patients from the Pennsylvania cluster and six of the eight patients from the California cluster have had Bcc isolated from urine; other body sites positive for Bcc included wounds and sputum. No patients in either cluster had cystic fibrosis. The ongoing investigation has identified a potential association between Bcc infection and Medline Remedy® Essentials No-Rinse Foam, a product used for skin and perineal care in both facilities.

Samples of the product were collected at the Pennsylvania facility from lots M05703/7235 and M06691/7256 which tested positive for Bcc. However, it is not known which lots were used on the patients who developed infections. Molecular testing on clinical and product isolates indicate that they are closely related. Cultures from additional product are pending.

Infections --

late outbreak of
ation with the use of
g certain lots of BD
d Normal Saline



Call for Cases: Infections Following Injections and Infusions with an Umbilical Cord Blood Product Marketed as a Stem Cell and Growth Factor Treatment October 2018

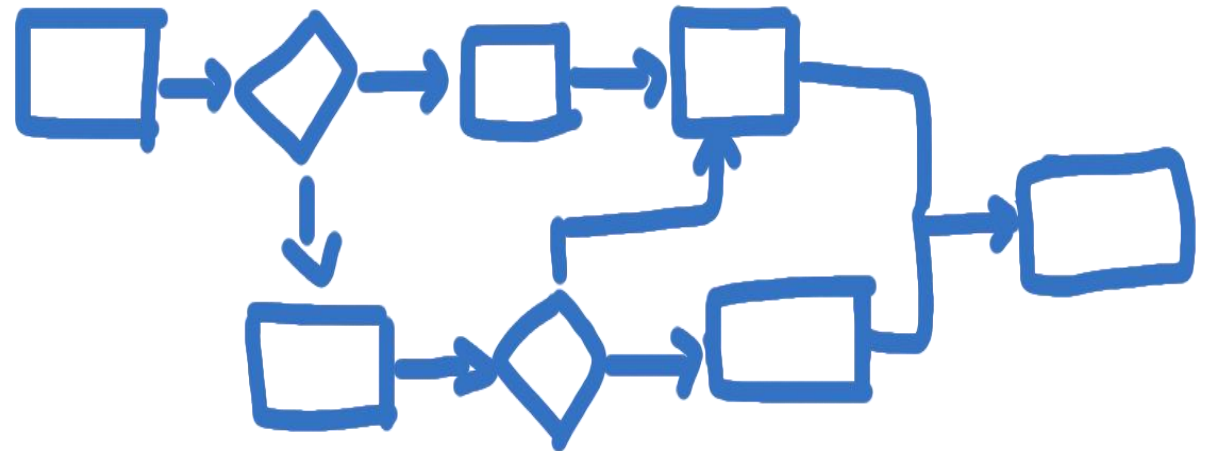
CDC and FDA are working with state and local health departments to investigate bacterial infections in Texas and Florida following injections and infusions with umbilical cord blood product distributed by Liveyon and manufactured by GeneTech Inc. The Florida Department of Health has identified four patients with septic arthritis who had received outpatient injections of Liveyon's umbilical cord blood product between February 15 and August 30, 2018. *Escherichia coli* was isolated from synovial fluid cultures from all four patients; additional organisms were isolated from cultures of three patients, including *Enterococcus faecalis* (2) and *Proteus mirabilis* (1). *E. coli* and *E. faecalis* were also isolated from an unopened vial of Liveyon's umbilical cord blood product obtained from one clinic. Additional product testing is ongoing. The Texas Department of State Health Services has identified three patients hospitalized with bloodstream infections following injections or intravenous infusions of Liveyon's umbilical cord blood product at an outpatient clinic on September 12, 2018. *Enterobacter cloacae* was isolated from blood cultures from all three patients; *Citrobacter freundii* was isolated from a blood culture from one of the patients. Product testing is ongoing.

Liveyon has voluntarily recalled umbilical cord blood products:

<https://www.fda.gov/BiologicsBloodVaccines/SafetyAvailability/Recalls/ucm622190.htm>

Process

- **EPI-X** sent by Feds (State or Local authorities)
- MDHHS/SHARP evaluates information
- **HAN** is sent to LHDs, HCFs, and/or other partners
- HAN will contain the next steps
 - Look for this infection or product
 - Report cases to SHARP via MDSS
 - MDSS unusual occurrence
 - Outbreak identifier
- Michigan tends to be involved...
 - Most recently VIM-CRPA



Public Health Notifications

Federal Notifications

- *Epi-X* posted 11/19/18
- Partner notifications 12/13/18
- Alert level-2 travel notice posted by CDC DGMQ- January 2019

<https://wwwnc.cdc.gov/travel/notices/alert/drug-resistant-infections-mexico>

Statewide Notification

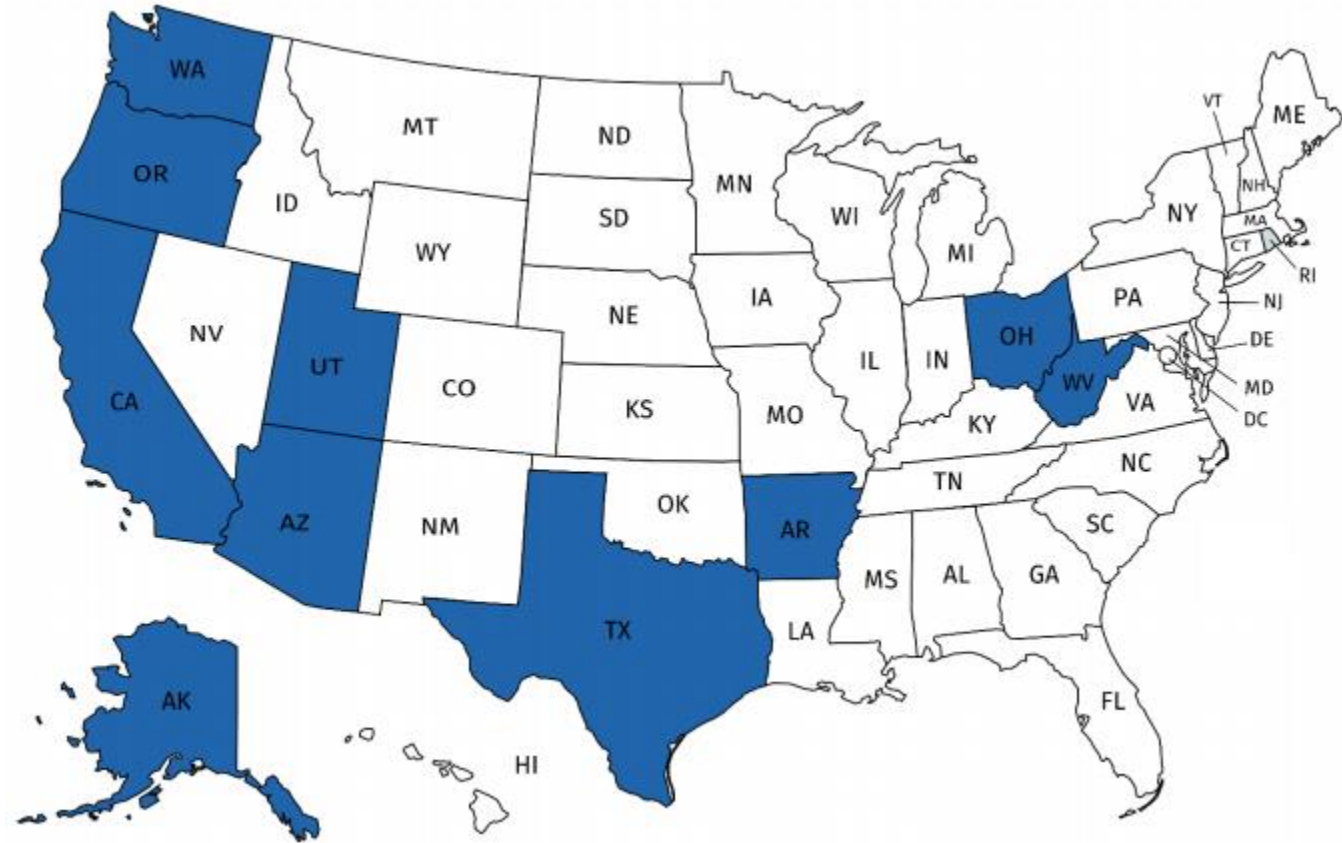
- HAN 2/22/19
 - Report cases to SHARP
 - Use Outbreak ID “**VIMPA2019**” in MDSS

Public Health Response

- Goals
 - Ensure patients who develop infections get prompt and appropriate treatment
 - Prevent spread of VIM-CRPA in U.S Hospitals
- Actions
 - **February 2019** – Weight Loss Agents (WLA) emailed patient portals of >620 US residents that were referred to Grand View Hospital since 8/1/2018
 - **CDC and MDHHS did NOT have the names of patients – HAN to HCFs**
 - HAN addressed ongoing risk of infection caused by VIM-CRPA and potential bloodborne pathogen exposure
 - **March 2019** – WLA provided the names, addresses and phone for 741 patients
 - Michigan had 16 patients who traveled to Mexico
 - SHARP reached out to LHDs and patients to administer questionnaires to high-priority patients (surgery since 1/1/19)
 - Assess whether exposed patients developed infections or have been hospitalized since procedures

VIM- CRPA: 2018-2019

- CDC investigating VIM-CRPA from U.S Patients with Recent Invasive Procedures in Mexico
- As of April 10, 2019
 - 32 cases identified from 17 states
 - **20 confirmed cases from 10 states**
 - Dates of culture 9/5/18-2/26/19
 - 12 suspect cases from 9 states





Patient Healthcare Exposures

- 17 reported surgery
 - 14 were bariatric
 - 4 did not specify surgery type
- 16 had surgery between 8/21/18-2/4/19
 - 1 patient identified retrospectively had surgery in 2015
 - 6 different hospitals reported
 - 5 hospitals reported by 1 patient each
 - **Grand View Hospital** reported by 14 patients

Infection Control at Grand View Hospital

- Mexican authorities conducted assessment on 12/4/18
- Evidence of Category B breach: **Facility did not follow recommended procedures for assuring the quality of sterilization processes**

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Infection Control Assessment and Response ICAR

ICAR Goals

- Increase patient safety
- Expand infection control resources
- Increase the number of infection control consultations provided by the SHARP unit



Methods

- Used a CDC tool to conduct infection control needs assessments
- Review facility practices:
 - Infection Control Infrastructure
 - Infection Control Training, Competency, and Implementation of Policies and Practices
 - Systems to Detect, Prevent and Respond to Healthcare-Associated Infections and Multi-Drug Resistant Organisms

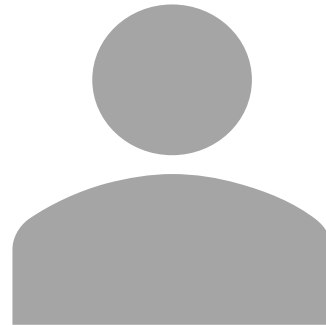
Assessment and Response



**Discuss findings with
Infection Preventionists and
other staff**

Strengths

Areas for opportunity



**Report individual facility
findings**



Aggregate findings

Facility Recruitment: 2015-2018

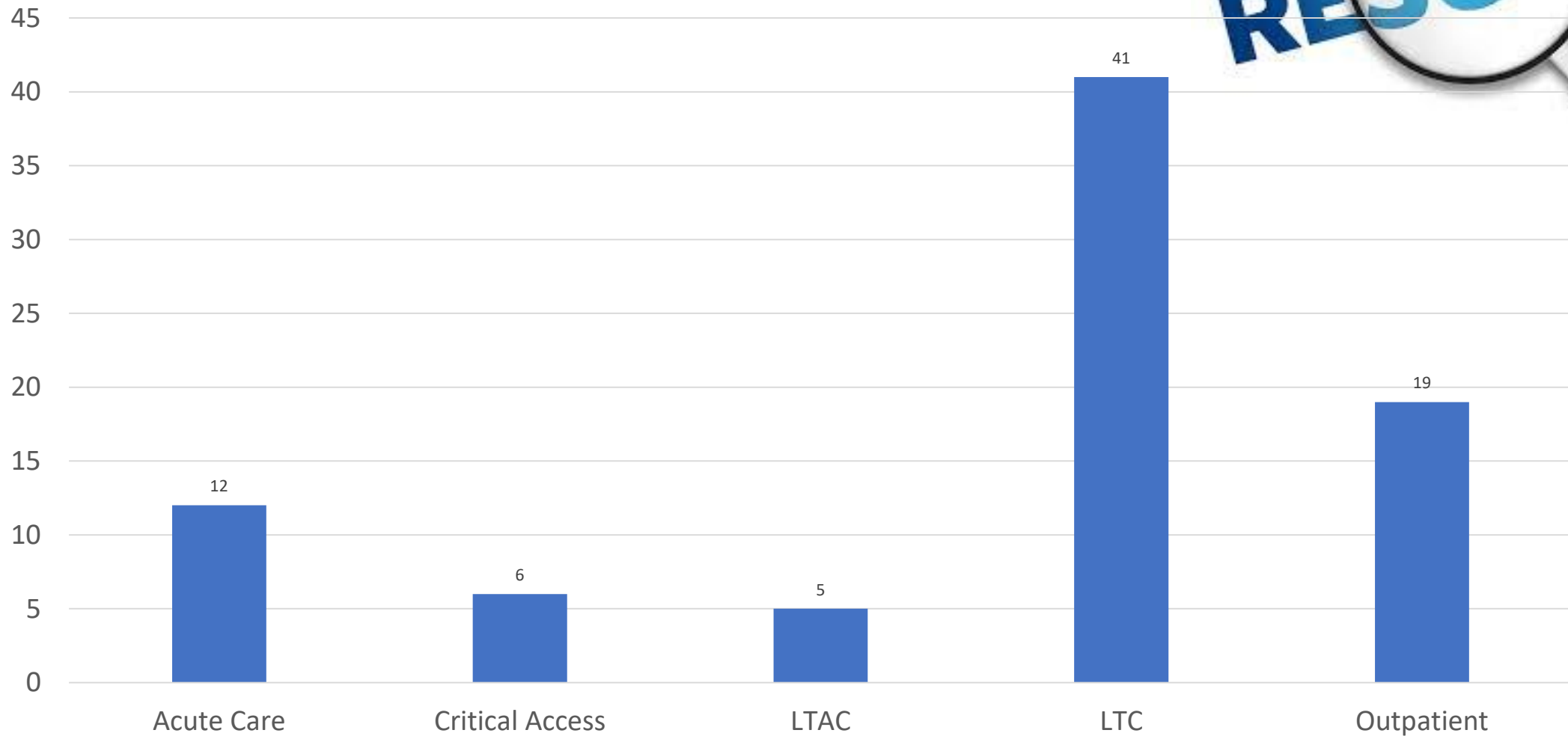
- Voluntary participation
- Collaborative, NOT regulatory
- Advertised to interested facilities:
 - Website, flyers, emails
 - Professional societies (e.g. MSIPC, APIC GL, HCAM)
 - Meetings and conference presentations



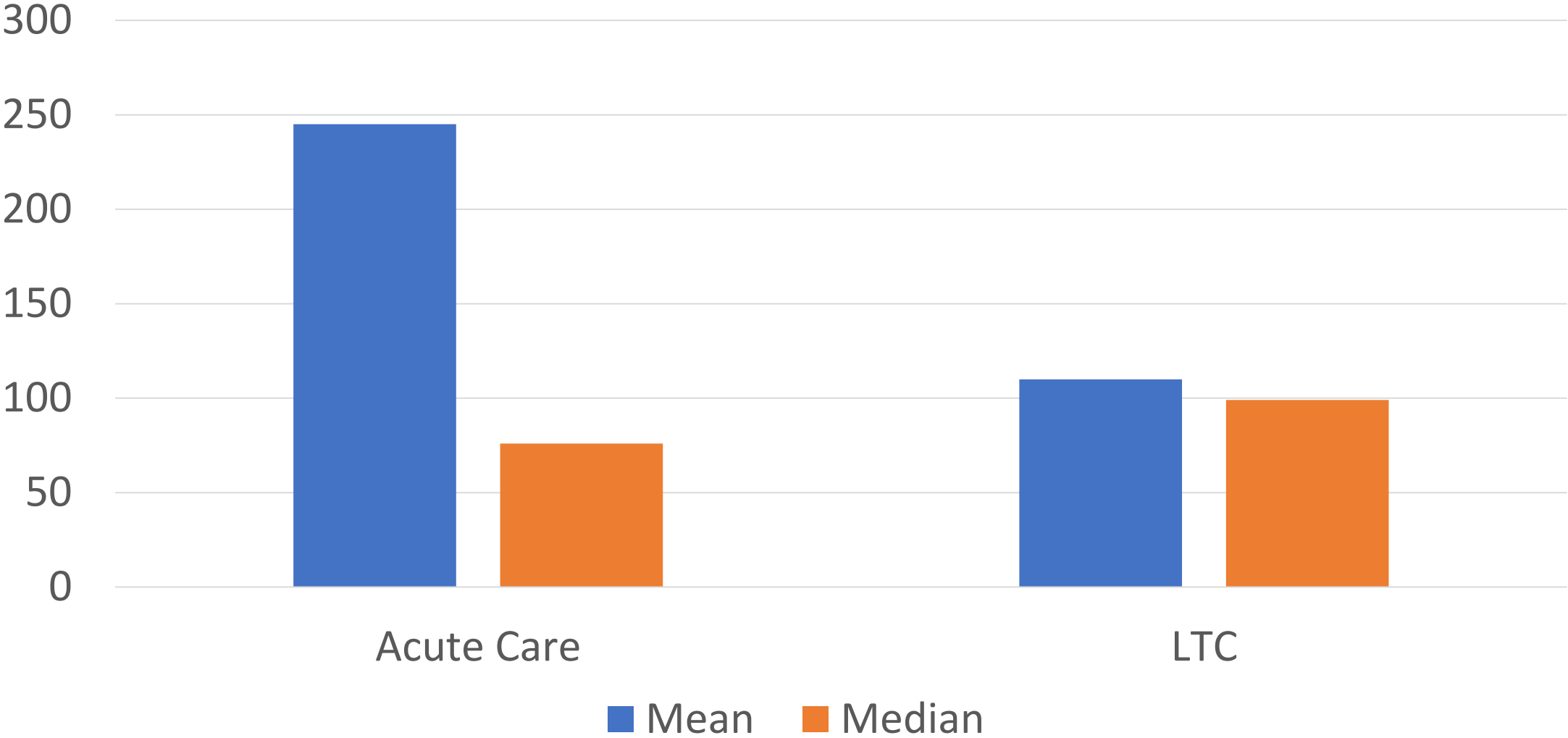
Facility recruitment: 2019-

- Response to HAI outbreak
- Response to identification of a novel organism
- Volunteer!

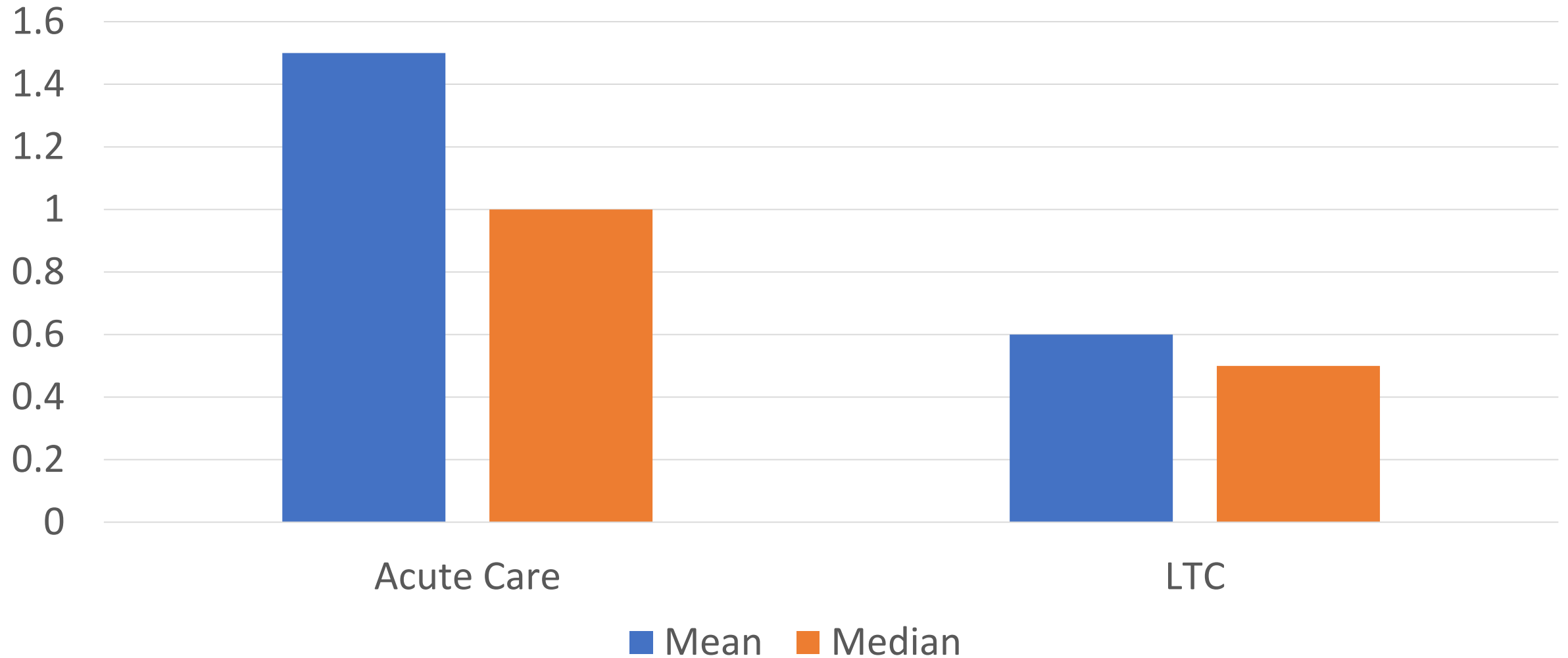
Number of ICARs Conducted by Facility Type- Michigan 2015-2018



Number of beds (mean & median) by facility type



Number of Infection Preventionists (mean & median) by facility type



Results

- Gaps were common
- Assessments identified at least 1 gap in each facility
- Competency-based training programs both upon hire and annually
 - Hand hygiene
 - PPE
 - UC insertion and maintenance
 - Catheter insertion and maintenance
 - Injection Safety
 - VAE prevention
 - Environmental cleaning



Results

- Acute Care:
 - Audit/feedback programs for
 - UC insertion and maintenance
 - Central line insertion and maintenance
 - VAE prevention
 - Transfer forms
 - Transfer out to another facility
 - Prior to accepting from another facility



Long-Term Care

- 95% of facilities had at least 1 gap in Antimicrobial Stewardship
 - Meet those Core Elements!
 - Staff education and training
- 70% do not have policies/procedures in place to ensure reusable medical devices are cleaned and reprocessed appropriately

Outpatient facilities

- 79% did not have at least 1 person training in infection prevention
- 67% do not have a process to perform initial cleaning of devices prior to transport to off-site reprocessing



Outpatient

Lessons Learned



No program is perfect—
always room for
improvement



Infection prevention
involves a lot of
departments- get to
know your colleagues!



ICAR is a great tool and
free resource to
enhance your program

Infection Control Assessment and Response (ICAR)

Evaluate your infection control program!

- ✓ Collaborative NOT regulatory
- ✓ Focus on quality improvement- patient safety is our primary goal
- ✓ Free consultation
 - Conducted on-site or over the phone
- ✓ Strengthen your Infection Control program
 - Add another tool to your resources
- ✓ Chance to help guide national training efforts- aggregate results from this needs assessment will help direct development of infection prevention education and training
- ✓ Hospitals (long-term acute care, acute care and critical access)
- ✓ Long-Term Care

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Thank you!